

What is claimed is:

1. A method for summarizing a news video stream using a synthetic key frame based upon video text, the method comprising the steps of:

5 identifying the kind of text regions extracted from a news video stream containing a plurality of articles;

allocating different weight to each text region based upon the identification; and

generating a synthetic key frame by synthesizing each text region into a key frame, if the each text region has an importance measure of at least a certain value.

10 2. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 1, wherein the each text region is an icon text region or a general text region.

15 3. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 2, wherein the icon text region is extracted from an anchor shot.

20 4. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 2, wherein the general text region is extracted from an episode shot.

25 5. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 1, wherein the key frame comprises one icon text region and at least one general text region.

6. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 1, wherein the key frame is generated in the unit of article.

5

7. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 1, wherein an importance measure is allocated to an icon text region with a larger value than a general text region.

10

8. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 1, wherein the importance measure is allocated to a general text region using the weight determined according to a weight determining factor.

15

9. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 8, wherein the weight determining factor includes the size of the text region, the mean text size in the text region and the display duration time of the text.

20

10. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 8, wherein the weight is determined in proportion to the weight determining factor.

25

11. The method for summarizing a news video stream using a synthetic key frame based upon video text according to claim 11, wherein the text region having

importance measure of at least a certain value is selected in the order of higher importance.

12. The method for summarizing a news video stream using a synthetic key
5 frame based upon video text according to claim 1, wherein the number and the size of
the text region are determined according to the size of a browser.

13. A method for summarizing a news video stream using a synthetic key
frame based upon video text, the method comprising the following steps of:
10 identifying whether text regions extracted from a news video stream is an icon
text region;
allocating the highest importance measure to the icon text region, if the text
regions is the icon text region;
allocating importance measures to general text regions, if the text region are not
15 the icon text region;
selecting text regions to be synthesized from the general text regions in the
order of high importance; and
synthesizing the icon text region and the text regions to be synthesized into a
key frame.

20

14. The method for summarizing a news video stream using a synthetic key
frame based upon video text according to claim 13, wherein the icon text region is
extracted from an anchor shot.

25 15. The method for summarizing a news video stream using a synthetic key

frame based upon video text according to claim 13, wherein the icon text region represents one article.

16. The method for summarizing a news video stream using a synthetic key
5 frame based upon video text according to claim 13, wherein the general text region is extracted from an episode shot.

17. The method for summarizing a news video stream using a synthetic key
10 frame based upon video text according to claim 13, wherein each of the importance measures of the general text region is allocated using a weight determined according to a weight determining factor.

18. The method for summarizing a news video stream using a synthetic key
15 frame based upon video text according to claim 17, wherein the weight determining factor includes the size of the text region, the mean text size in the text region and the display duration time of the text.